

Before using the unit, please read this manual and the computer's manual, and retain them for future reference.

Sony HBI-55 data cartridge is used to store data of the software built in the Sony home computer HB-55P or HB-75P/B. The cartridge can store data up to 4K bytes (about 4000 characters).

## PRECAUTIONS

Turn off the computer whenever you insert or remove the data cartridge.

Handle the cartridge with care.

- Care should be taken so that no solid object or liquid falls into the cartridge enclosure.
- Do not attempt to disassemble the cartridge.
- Do not drop cartridge or bump it against other objects.

Do not place the cartridge near heat sources as radiators or air ducts or in a place subject to direct sunlight, excessive dust, mechanical vibration or moisture.

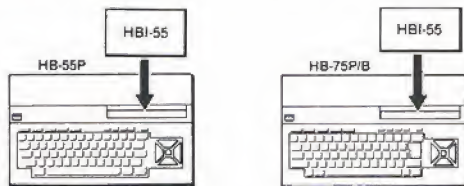
## INSERTION OF THE DATA CARTRIDGE



First make sure your MSX computer and a monitor TV are connected correctly. For instructions on the connection, please refer to the instruction manual of the computer.

- 1 Insert the data cartridge into cartridge slot A with the illustration side toward you or into cartridge slot B with the illustration side up. When an MSX-BASIC program is to be saved or to be loaded on an HB-55P, insert the HBM-64 expansion memory cartridge into the other cartridge slot.
  - 2 Turn on the computer.
  - 3 Turn on the monitor TV and select the proper channel for the computer.
- Do not insert any cartridge other than HBM-16 or HBM-64 into the other cartridge slot when a data cartridge is used.

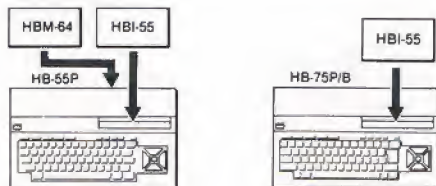
## TO SAVE/LOAD DATA OF THE PERSONAL DATA BANK



### Operation

Refer to the "How to Use the Personal Data Bank" supplied with the HB-55P or HB-75P/B.

## TO SAVE/LOAD AN MSX BASIC PROGRAM



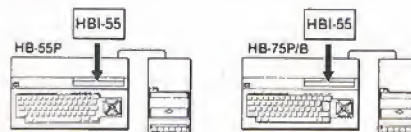
### Operation

- ① Start the MSX-BASIC by selecting "BASIC + DATA CARTRIDGE".
- ② In the MSX-BASIC mode, execute  
SAVE "CAT:"  
to save the program in the computer to the data cartridge.  
Execute  
LOAD "CAT:"  
to load the program in the data cartridge to the computer.
- One MSX-BASIC program can be stored in a data cartridge at a time.

## MAKING A BACKUP COPY OF THE DATA CARTRIDGE

The data cartridge is powered by a lithium battery. The battery will be exhausted after about 5 years of use, after which the data cartridge cannot be used again. Before the battery is completely discharged, copy the data in the cartridge to another data cartridge.

### TO COPY THE DATA OF THE PERSONAL DATA BANK



### Operation

- ① Copy the data of the Personal Data Bank in the data cartridge to a cassette tape by using the Personal Data Bank COPY function.
- ② Copy the data on the tape to a new data cartridge by using the Personal Data Bank COPY function.
- For details about the COPY function, refer to the "How to Use the Personal Data Bank" supplied with the HB-55P or HB-75P/B.

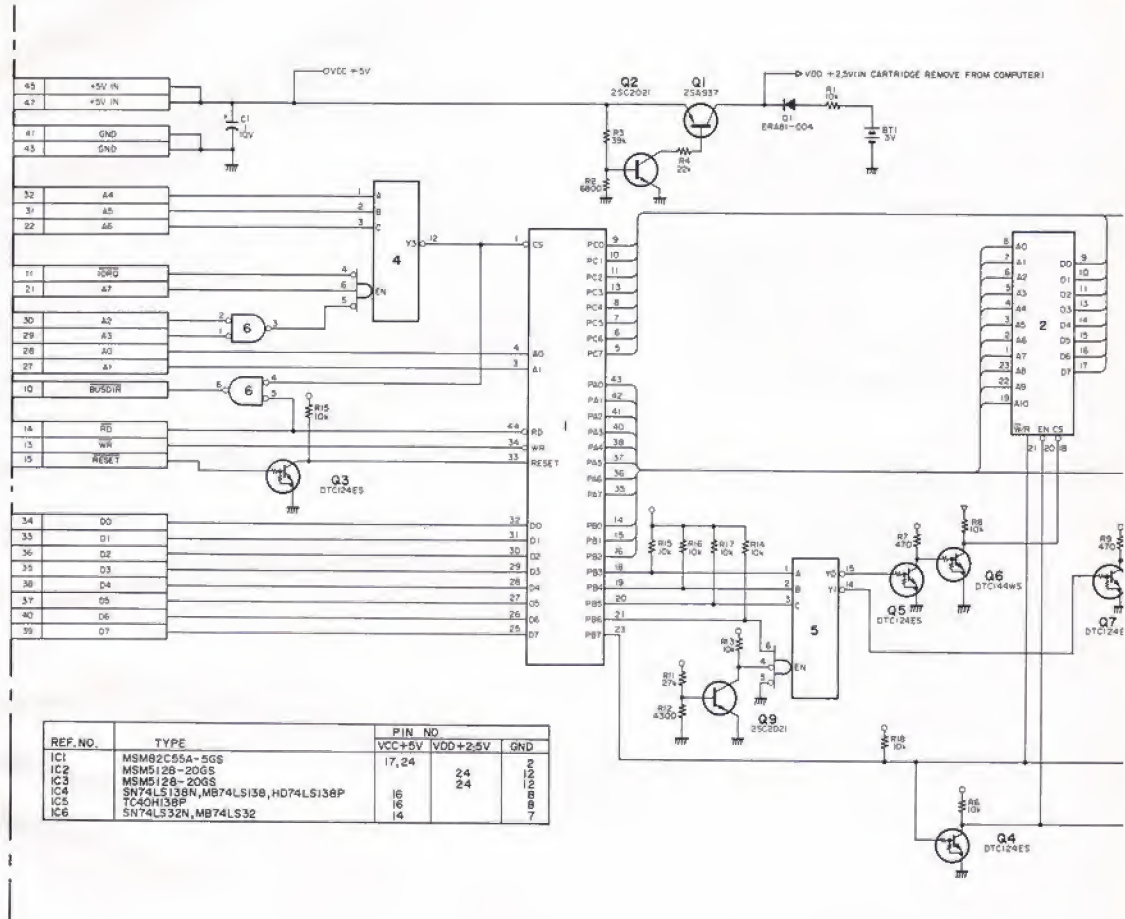
### TO COPY THE MSX-BASIC PROGRAM



### Operation

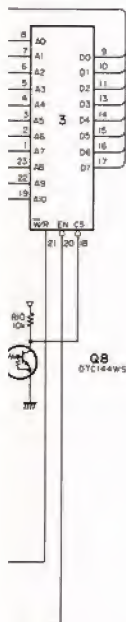
- ① Load the MSX-BASIC program in the data cartridge to the computer by executing  
LOAD "CAT:"
- ② Save the program onto the cassette tape by executing  
CSAVE "file name"
- ③ Turn off the power of the computer, remove the data cartridge and insert a new data cartridge. Then turn on the computer and start the MSX-BASIC.
- ④ Load the program which was saved in the step ② from the cassette tape to the computer by executing  
CLOAD "file name"
- ⑤ Save the program onto the data cartridge by executing  
SAVE "CAT:"

# SCHEMATIC DIAGRAM

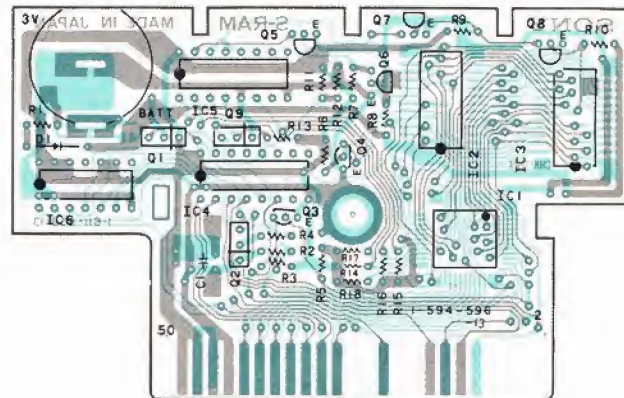


S-RAM

# PRINTED CIRCUIT BOARD



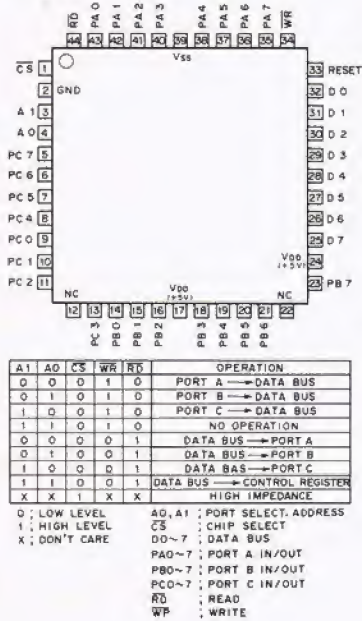
**S-RAM**  
1-611-838-13  
HB1-55(EK)



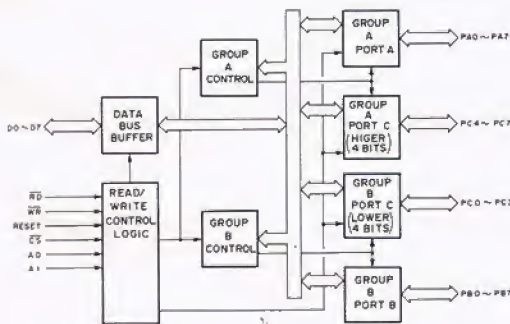
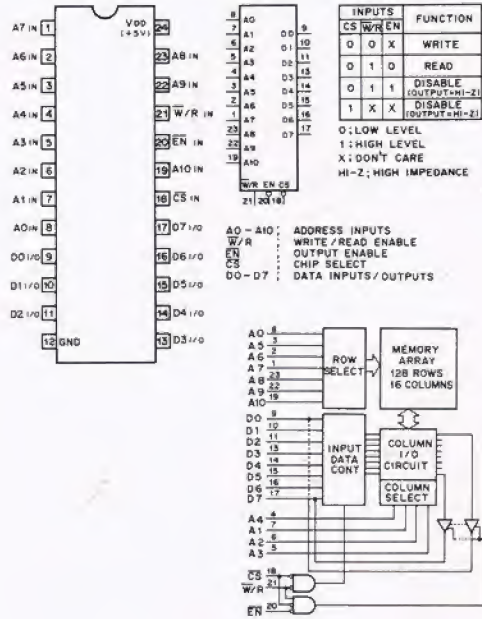
**S-RAM**  
COMPONENT SIDE  
1-611-838-13  
HB1-55(EK)

## SEMICONDUCTOR PIN ASSIGNMENTS

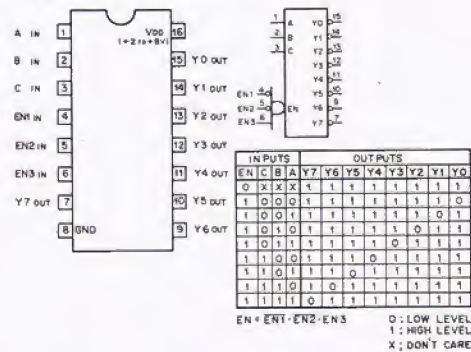
MSM82C55A-5GS (OKI) FLAT PACKAGE  
C-MOS PROGRAMMABLE PERIPHERAL INTERFACE  
— TOP VIEW —



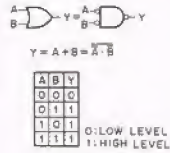
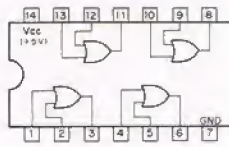
MSM5128-20GS (OKI) (ACCESS TIME = 200 nS) FLAT PACKAGE  
C-MOS 16384(2048x8)-BIT HIGH SPEED STATIC RAM  
— TOP VIEW —



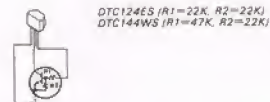
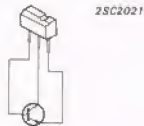
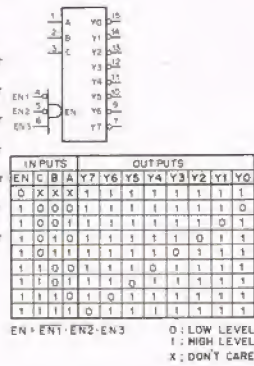
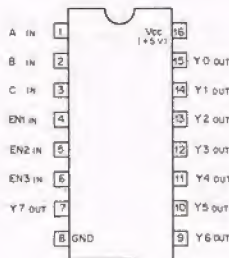
TC40H138P (TOSHIBA)  
C-MOS 3-TO-8-LINE DECODER/DEMULPLEXER  
— TOP VIEW —



SN74LS32N (TI)  
TTL 2-INPUT POSITIVE-OR GATE  
— TOP VIEW —

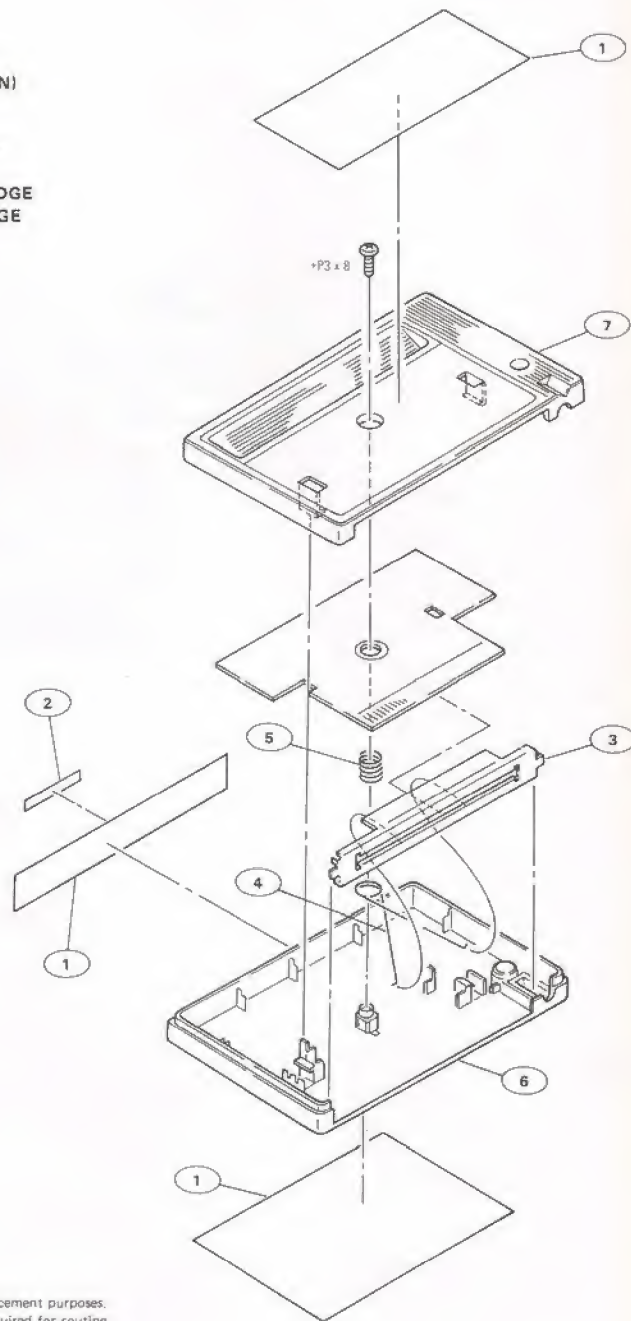


SN74LS138N (TI)  
TTL 3-TO-8-LINE DECODER/DEMULTIPLEXER  
— TOP VIEW —



# EXPLODED VIEW

No.	Parts No.	Description
1	<b>X-4604-426-1</b>	<b>LABEL ASSY</b>
2	<b>3-701-690-01</b>	<b>LABEL (MADE IN JAPAN)</b>
3	4-604-401-02	PROTECTOR
4	<b>4-604-402-01</b>	<b>SPRING, TORSION</b>
5	<b>4-604-403-01</b>	<b>SPRING, COMPRESSION</b>
6	<b>4-604-407-11</b>	<b>CASE (FRONT), CARTRIDGE</b>
7	<b>4-604-408-12</b>	<b>CASE (REAR), CARTRIDGE</b>



## NOTE:

1. Parts printed in **Bold-Face** type are normally stocked for replacement purposes. The remaining parts shown in this manual are not normally required for routine service work. Orders for parts not shown in **Bold-Face** type will be processed, but allow for additional delivery time.
2. Item with no part number and/or no description are not stocked because they are seldom required for routine service.

# ELECTRICAL PARTS LIST


Ref. No.	Parts No.	Description
<b>S-RAM BOARD</b>		
BT1	1-528-138-11	BATTERY, LITHIUM
C1	1-131-418-00	TANTALUM 1 20% 10V
D1	8-719-981-01	ERA81-004
IC1	8-759-910-35	MSM82C55A-5GS
IC2	8-759-910-36	MSM5128-20GS
IC3	8-759-910-36	MSM5128-20GS
IC4	8-759-901-38	SN74LS138N
IC5	8-759-200-22	TC40H138P
IC6	8-759-900-32	SN74LS32N
Q1	8-729-993-72	2SA937
Q2	8-729-902-11	2SC2021
Q3	8-729-900-36	DTC124ES
Q4	8-729-900-36	DTC124ES
Q5	8-729-900-36	DTC124ES
Q6	8-729-900-85	DTC144WS
Q7	8-729-900-36	DTC124ES
Q8	8-729-900-85	DTC144WS
Q9	8-729-902-11	2SC2021
R1	1-247-855-00	CARBON 10K 5% 1/6W
R2	1-247-851-00	CARBON 6.8K 5% 1/6W
R3	1-247-869-00	CARBON 39K 5% 1/6W
R4	1-247-863-00	CARBON 22K 5% 1/6W
R5	1-247-855-00	CARBON 10K 5% 1/6W

Ref. No.	Parts No.	Description
R6	1-247-855-00	CARBON 10K 5% 1/6W
R7	1-247-823-00	CARBON 470 5% 1/6W
R8	1-247-855-00	CARBON 10K 5% 1/6W
R9	1-247-823-00	CARBON 470 5% 1/6W
R10	1-247-855-00	CARBON 10K 5% 1/6W
R11	1-247-865-00	CARBON 27K 5% 1/6W
R12	1-247-846-00	CARBON 4.3K 5% 1/6W
R13	1-247-855-00	CARBON 10K 5% 1/6W
R14	1-247-855-00	CARBON 10K 5% 1/6W
R15	1-247-855-00	CARBON 10K 5% 1/6W
R16	1-247-855-00	CARBON 10K 5% 1/6W
R17	1-247-855-00	CARBON 10K 5% 1/6W
R18	1-247-855-00	CARBON 10K 5% 1/6W

## PACKING MATERIAL

Ref. No.	Parts No.	Description
	3-773-734-11	MANUAL, INSTRUCTION
	4-604-478-01	INDIVIDUAL CARTON (BOX, INNER)
	4-605-061-01	INDIVIDUAL CARTON (BOX, OUTER)

### NOTE:

1. The shaded and -marked components are critical to safety.  
Replace only with same components as specified.

2. Parts printed in **Bold-Face type** are normally stocked for replacement purposes. The remaining parts shown in this manual are not normally required for routine service work. Orders for parts not shown in Bold-Face type will be processed, but allow for additional delivery time.

HBI-55 (EK)  
9-975-557-01

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